

Application Number 10/541602
Response to the Office Action dated 02/28/2008

JUN 24 2008

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A glass flake, comprising a glass composition, the glass composition comprising more than 10 mass % of a transition metal oxide and allowing the glass flake to have a visible-light transmittance of 85% or lower measured with an A light source when the glass flake has a thickness of 15 μm .

2. (Currently Amended) The glass flake according to claim 1, wherein the glass composition further comprises SiO_2 and an alkali metal oxide, and comprises more than 10 mass% of the transition metal oxide.

3. (Original) The glass flake according to claim 2, wherein the glass composition comprises the following components, expressed in mass%:

$20 \leq \text{SiO}_2 \leq 70$;

$10 < \text{T-Fe}_2\text{O}_3 \leq 50$; and

$5 \leq (\text{Li}_2\text{O} + \text{Na}_2\text{O} + \text{K}_2\text{O}) \leq 50$,

where the $\text{T-Fe}_2\text{O}_3$ denotes Fe_2O_3 whose amount is calculated from the total content of iron contained in the glass composition.

4. (Original) The glass flake according to claim 1, wherein the glass composition further comprises SiO_2 and an alkaline-earth metal oxide, and comprises more than 10 mass% of the transition metal oxide.

5. (Original) The glass flake according to claim 4, wherein the glass composition comprises the following components, expressed in mass%:

$20 \leq \text{SiO}_2 \leq 70$;

$10 < \text{T-Fe}_2\text{O}_3 \leq 50$; and

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$5 \leq (\text{MgO} + \text{CaO} + \text{SrO}) \leq 50$,

where the T- Fe_2O_3 denotes Fe_2O_3 whose amount is calculated from the total content of iron contained in the glass composition.

6. (Original) The glass flake according to claim 1, wherein the glass composition further comprises SiO_2 , an alkali metal oxide, and an alkaline-earth metal oxide, and comprises more than 10 mass% of the transition metal oxide.

7. (Original) The glass flake according to claim 6, wherein the glass composition comprises the following components, expressed in mass%:

$20 \leq \text{SiO}_2 \leq 70$;

$10 < \text{T-Fe}_2\text{O}_3 \leq 50$;

$0 < (\text{Li}_2\text{O} + \text{Na}_2\text{O} + \text{K}_2\text{O}) < 50$;

$0 < (\text{MgO} + \text{CaO} + \text{SrO}) < 50$; and

$5 \leq (\text{Li}_2\text{O} + \text{Na}_2\text{O} + \text{K}_2\text{O} + \text{MgO} + \text{CaO} + \text{SrO}) \leq 50$,

where the T- Fe_2O_3 denotes Fe_2O_3 whose amount is calculated from the total content of iron contained in the glass composition.

8. (Currently Amended) ~~The glass flake according to claim 1, comprising a glass composition and metal oxide crystals that contain Fe as a constituent atom and are precipitated in the glass composition, wherein the glass flake has a visible-light transmittance of 85% or lower measured with an A light source when the glass flake has a thickness of 15 μm further comprising metal oxide crystals that contain Fe as a constituent atom.~~

9. (Original) The glass flake according to claim 8, wherein the metal oxide crystals comprise at least one selected from Fe_2O_3 and Fe_3O_4 .

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10. (Original) The glass flake according to claim 1, wherein the glass composition comprises an oxide of Fe as the transition metal oxide, and the Fe satisfies a formula of $0.05 \leq \text{Fe}^{2+} / (\text{Fe}^{2+} + \text{Fe}^{3+}) < 1.00$.

11. (Original) The glass flake according to claim 10, wherein the Fe satisfies a formula of $0.10 \leq \text{Fe}^{2+} / (\text{Fe}^{2+} + \text{Fe}^{3+}) \leq 0.80$.

12. (Original) The glass flake according to claim 1, further comprising a coating film that is formed on a surface of the glass flake and contains at least one selected from a metal and a metal oxide.

13. (Original) The glass flake according to claim 12, wherein the metal is at least one selected from the group consisting of nickel, gold, silver, platinum, and palladium.

14. (Original) The glass flake according to claim 12, wherein the metal oxide is an oxide of at least one selected from the group consisting of titanium, aluminum, iron, cobalt, chromium, zirconium, zinc, and tin.

15. (Withdrawn) A resin composition comprising a glass flake according to claim 1.

16. (Withdrawn) A paint comprising a glass flake according to claim 1.

17. (Withdrawn) A cosmetic product comprising a glass flake according to claim 1.

18. (Canceled)

19. (Canceled)

20. (Canceled)

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21. (Cancelled)

22. (New) The glass flake according to claim 8, wherein the glass composition comprises an oxide of Fe as the transition metal oxides, and the Fe satisfies a formula of $0.05 \leq \text{Fe}^{2+} / (\text{Fe}^{2+} + \text{Fe}^{3+}) < 1.00$.

23. (New) The glass flake according to claim 22, wherein the Fe satisfies a formula of $0.10 \leq \text{Fe}^{2+} / (\text{Fe}^{2+} + \text{Fe}^{3+}) \leq 0.80$.

24. (New) The glass flake according to claim 8, further comprising a coating film that is formed on a surface of the glass flake and contains at least one selected from a metal and a metal oxide.

25. (New) The glass flake according to claim 24, wherein the metal is at least one selected from the group consisting of nickel, gold, silver, platinum, and palladium.

26. (New) The glass flake according to claim 24, wherein the metal oxide is an oxide of at least one selected from the group consisting of titanium, aluminum, iron, cobalt, chromium, zirconium, zinc, and tin.